

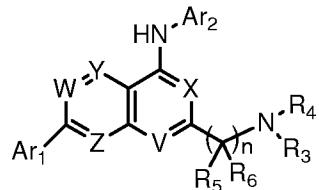
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1-40. (Cancelled)

41. (Previously presented) A compound of the formula:



or a pharmaceutically acceptable salt or hydrate thereof, wherein:

V, X and Z are N;

W and Y are CR₁;

R₁ is independently selected at each occurrence from hydrogen, halogen, hydroxy, cyano, amino, C₁-C₆alkyl, haloC₁-C₆alkyl, C₁-C₆alkoxy, haloC₁-C₆alkoxy, C₁-C₄alkoxycarbonyl and mono- and di-(C₁-C₆alkyl)amino;

R₃ and R₄ are:

(i) each independently selected from:

(a) hydrogen;

(b) C₁-C₈alkyl, C₂-C₈alkenyl, C₂-C₈alkynyl, C₃-C₈alkanone, C₂-C₈alkanoyl, C₂-C₈alkyl ether, (C₆-C₁₀aryl)C₀-C₈alkyl, (5- to 10-membered heterocycle)C₀-C₈alkyl and -(SO₂)C₁-C₈alkyl, each of which is substituted with from 0 to 4 substituents independently chosen from R_b; and

(c) groups that are taken together with an R₅ or R₆ to form a 4- to 10-membered heterocycle that is substituted with from 0 to 4 substituents independently chosen from R_b; or

(ii) taken together to form a 4- to 10-membered heterocycle that is substituted with from 0 to 4 substituents independently chosen from R_b;

R₅ and R₆ are, independently at each occurrence:

(i) each independently hydrogen, C₁-C₈alkyl substituted with from 0 to 2 substituents independently chosen from R_b, or taken together with R₃ or R₄ to form a 4- to 10-membered heterocyclic group that is substituted with from 0 to 4 substituents independently chosen from R_b;

(ii) taken together to form a keto group; or

(iii) taken together to form a 3- to 7-membered carbocyclic or heterocyclic ring that is substituted with from 0 to 4 substituents independently chosen from R_b;

n is 1, 2 or 3;

Ar₁ and Ar₂ are independently selected from phenyl or pyridyl, each of which is substituted with from 0 to 3 substituents independently selected from groups of the formula LR_a;

L is independently selected at each occurrence from a bond, O, S(O)_m, C(=O), OC(=O), C(=O)O, O-C(=O)O, N(R_x), C(=O)N(R_x), N(R_x)C(=O), N(R_x)S(O)_m, S(O)_mN(R_x) and N[S(O)_mR_x]S(O)_m; wherein m is independently selected at each occurrence from 0, 1 and 2; and R_x is independently selected at each occurrence from hydrogen and C₁-C₈alkyl;

R_a is independently selected at each occurrence from: (i) hydrogen, halogen, cyano and nitro; and (ii) C₁-C₈alkyl, C₂-C₈alkenyl, C₂-C₈alkynyl, C₂-C₈alkyl ether, (4- to 10-membered heterocycle)C₀-C₈alkyl and mono- and di-(C₁-C₈alkyl)amino, each of which is substituted with from 0 to 4 substituents independently selected from hydroxy, halogen, amino, cyano, nitro, oxo, -COOH, C₁-C₄alkyl, C₁-C₄alkoxy, haloC₁-C₄alkyl, haloC₁-C₄alkoxy, hydroxyC₁-C₄alkyl, and mono- and di-(C₁-C₆alkyl)amino; and

R_b is independently chosen at each occurrence from:

(i) hydroxy, halogen, amino, aminocarbonyl, cyano, nitro, oxo and -COOH; and

(ii) C₁-C₈alkyl, C₁-C₈haloalkyl, C₁-C₈alkoxy, C₁-C₈haloalkoxy, C₁-C₈alkanoyl, C₂-C₈alkoxycarbonyl, C₂-C₈alkanoyloxy, C₁-C₈alkylthio, C₂-C₈alkyl ether, phenylC₀-C₈alkyl, phenylC₀-C₈alkoxy, mono- and di-(C₁-C₆alkyl)aminoC₀-C₆alkyl, -

(SO₂)C₁-C₈alkyl and (4- to 7-membered heterocycle)(C₀-C₈alkyl); each of which is substituted with from 0 to 3 substituents independently chosen from hydroxy, halogen, amino, cyano, C₁-C₄alkyl, C₁-C₄alkoxy, hydroxyC₁-C₄alkyl, haloC₁-C₄alkyl, and mono- and di-(C₁-C₄alkyl)amino.

42. - 45. (Cancelled)

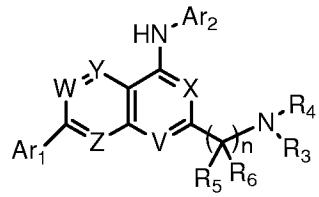
46. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein Z is N and W and Y are each CH.

47. (Cancelled)

48. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein Ar₁ and Ar₂ are independently selected from phenyl and pyridyl, each of which is substituted with 0, 1 or 2 substituents.

49. (Currently amended) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 48, wherein:

of the formula:



or a pharmaceutically acceptable salt or hydrate thereof, wherein:

V, X and Z are N;

W and Y are CR₁;

R₁ is independently selected at each occurrence from hydrogen, halogen, hydroxy, cyano, amino, C₁-C₆alkyl, haloC₁-C₆alkyl, C₁-C₆alkoxy, haloC₁-C₆alkoxy, C₁-C₄alkoxycarbonyl and mono- and di-(C₁-C₆alkyl)amino;

R₃ and R₄ are:

(i) each independently selected from:

(a) hydrogen;

(b) C₁-C₈alkyl, C₂-C₈alkenyl, C₂-C₈alkynyl, C₃-C₈ alkanone, C₂-C₈ alkanoyl, C₂-C₈alkyl ether, (C₆-C₁₀aryl)C₀-C₈alkyl, (5- to 10-membered heterocycle)C₀-C₈alkyl and -(SO₂)C₁-C₈alkyl, each of which is substituted with from 0 to 4 substituents independently chosen from R_b; and

(c) groups that are taken together with an R₅ or R₆ to form a 4- to 10-membered heterocycle that is substituted with from 0 to 4 substituents independently chosen from R_b; or

(ii) taken together to form a 4- to 10-membered heterocycle that is substituted with from 0 to 4 substituents independently chosen from R_b;

R₅ and R₆ are, independently at each occurrence:

(i) each independently hydrogen, C₁-C₈alkyl substituted with from 0 to 2 substituents independently chosen from R_b, or taken together with R₃ or R₄ to form a 4- to 10-membered heterocyclic group that is substituted with from 0 to 4 substituents independently chosen from R_b;

(ii) taken together to form a keto group; or

(iii) taken together to form a 3- to 7-membered carbocyclic or heterocyclic ring that is substituted with from 0 to 4 substituents independently chosen from R_b;

n is 1, 2 or 3;

Ar₁ is phenyl or pyridyl, each of which is substituted with from 0 to 2 substituents independently selected from halogen, hydroxy, cyano, amino, nitro, mono- and di-(C₁-C₆alkyl)amino, C₁-C₆alkyl, haloC₁-C₆alkyl, C₁-C₆alkoxy and haloC₁-C₆alkoxy; and

Ar₂ is phenyl or pyridyl, each of which is substituted with from 0 to 2 substituents independently selected from halogen, hydroxy, cyano, amino, nitro, mono- and di-(C₁-C₆alkyl)amino, C₁-C₆alkyl, haloC₁-C₆alkyl, cyanoC₁-C₆alkyl, C₁-C₆alkoxy, haloC₁-C₆alkoxy, C₂-C₆alkyl ether, C₁-C₆ alkanoyl, -(SO₂)R_d, -N(R_x)S(O)_mR_d, and -N[S(O_m)R_x]S(O)_mR_d; wherein m is 1 or 2, R_x is hydrogen or C₁-C₆alkyl, and R_d is C₁-C₆alkyl, haloC₁-C₆alkyl, amino, mono- or di-(C₁-C₆alkyl)amino or a 5- to 10-membered, N-linked heterocyclic group, each of which R_d is substituted with from 0

to 2 substituents independently chosen from halogen, hydroxy, cyano, amino, nitro, mono- and di-(C₁-C₆alkyl)amino, C₁-C₄alkyl, haloC₁-C₄alkyl, C₁-C₄alkoxy and haloC₁-C₄alkoxy; and

R_b is independently chosen at each occurrence from:

- (i) hydroxy, halogen, amino, aminocarbonyl, cyano, nitro, oxo and -COOH; and
- (ii) C₁-C₈alkyl, C₁-C₈haloalkyl, C₁-C₈alkoxy, C₁-C₈haloalkoxy, C₁-C₈alkanoyl, C₂-C₈alkoxycarbonyl, C₂-C₈alkanoyloxy, C₁-C₈alkylthio, C₂-C₈alkyl ether, phenylC₀-C₈alkyl, phenylC₀-C₈alkoxy, mono- and di-(C₁-C₆alkyl)aminoC₀-C₆alkyl, -(SO₂)C₁-C₈alkyl and (4- to 7-membered heterocycle)(C₀-C₈alkyl); each of which is substituted with from 0 to 3 substituents independently chosen from hydroxy, halogen, amino, cyano, C₁-C₄alkyl, C₁-C₄alkoxy, hydroxyC₁-C₄alkyl, haloC₁-C₄alkyl, and mono- and di-(C₁-C₄alkyl)amino.

50. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 49, wherein:

Ar₁ is pyridyl, unsubstituted or substituted with halogen, cyano, C₁-C₄alkyl or haloC₁-C₄alkyl; and

Ar₂ is phenyl or pyridyl, substituted with from 0 to 2 substituents independently chosen from halogen, C₁-C₄alkyl, cyanoC₁-C₄alkyl haloC₁-C₄alkyl, C₂-C₆alkyl ether and groups of the formula -(SO₂)R_d, wherein R_d is C₁-C₄alkyl or haloC₁-C₄alkyl.

51. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 49, wherein:

Ar₁ is phenyl, unsubstituted or substituted with halogen, cyano, C₁-C₄alkyl or haloC₁-C₄alkyl; and

Ar₂ is phenyl or pyridyl, substituted with from 0 to 2 substituents independently chosen from halogen, C₁-C₄alkyl, cyanoC₁-C₄alkyl haloC₁-C₄alkyl, C₂-C₆alkyl ether and groups of the formula -(SO₂)R_d, wherein R_d is C₁-C₄alkyl or haloC₁-C₄alkyl.

52. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 49, wherein:

Ar₁ is pyridin-2-yl, 3-methyl-pyridin-2-yl, 3-trifluoromethyl-pyridin-2-yl or 3-halo-pyridin-2-yl; and

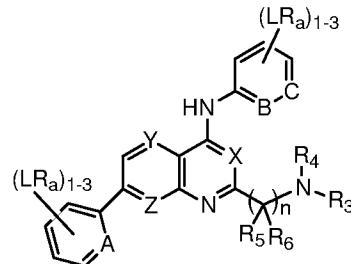
Ar₂ is phenyl, pyridin-2-yl or pyridin-3-yl, each of which is substituted at the *para*-position with halogen, cyano, methyl, ethyl, propyl, isopropyl, *t*-butyl, trifluoromethyl, 2,2,2-trifluoroethyl, 2,2,2-trifluoro-1-methyl-ethyl, methanesulfonyl, ethanesulfonyl, propanesulfonyl, propane-2-sulfonyl, trifluoromethanesulfonyl or 2,2,2-trifluoroethanesulfonyl.

53. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 49, wherein:

Ar₁ is phenyl, 2-methyl-phenyl, 2-trifluoromethyl-phenyl or 2-halo-phenyl; and

Ar₂ is phenyl, pyridin-2-yl or pyridin-3-yl, each of which is substituted at the *para*-position with halogen, cyano, methyl, ethyl, propyl, isopropyl, *t*-butyl, trifluoromethyl, 2,2,2-trifluoroethyl, 2,2,2-trifluoro-1-methyl-ethyl, methanesulfonyl, ethanesulfonyl, propanesulfonyl, propane-2-sulfonyl, trifluoromethanesulfonyl or 2,2,2-trifluoroethanesulfonyl.

54. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, having the formula:



wherein A, B, and C are each independently CH or N, wherein the ring represented by

the structure  is phenyl or pyridyl ; Y is CH; Z is N, and wherein each "(LR_a)₁₋₃" represents from 1 to 3 substituents independently chosen from groups of the formula LR_a.

55. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein R₃ and R₄ are independently selected from (i) hydrogen and (ii) C₁-C₈alkyl, C₂-C₈alkenyl, C₂-C₈alkynyl, C₃-C₈alkanone, C₁-C₈alkanoyl, C₂-C₈alkyl ether, (C₆-C₁₀aryl)C₀-C₈alkyl, (5- to 10-membered heterocycle)C₀-C₈alkyl and -(SO₂)C₁-C₈alkyl, each of which is substituted with from 0 to 4 substituents independently chosen from R_b.

56. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 55, wherein R₃ and R₄ are independently selected from (i) hydrogen and (ii) C₁-C₈alkyl, C₂-C₈alkenyl, phenylC₀-C₄alkyl, indanylC₀-C₄alkyl, (5- to 6-membered heteroaryl)C₀-C₄alkyl and (5- to 7-membered heterocycloalkyl)C₀-C₄alkyl, each of which is substituted with from 0 to 4 substituents independently selected from hydroxy, halogen, amino, C₁-C₆alkyl, haloC₁-C₆alkyl, C₁-C₆alkoxy and haloC₁-C₆alkoxy.

57. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 56, wherein R₃ and R₄ are independently selected from hydrogen, C₁-C₆alkyl, C₂-C₆alkenyl, (5- to 7-membered heterocycle)C₀-C₄alkyl, C₂-C₆alkyl ether, indanyl, benzyl, 1-phenyl-ethyl, 1-phenyl-propyl and 2-phenyl-ethyl, each of which is substituted with from 0 to 3 substituents independently selected from hydroxy, halogen and C₁-C₄alkyl, with the proviso that at least one of R₃ and R₄ is not hydrogen.

58. (Currently amended) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein one of R₃ or R₄ is taken together with an R₅ or R₆ to form a 4- to 10-membered heterocyclic group that is substituted with from 0 to 4 substituents independently selected from hydroxy, halogen, C₁-C₄alkyl, haloC₁-C₄alkyl, C₁-C₄alkoxy, haloC₁-C₄alkoxy, C₁-C₄alkanoyl, G₁C₂-C₄alkoxycarbonyl, aminocarbonyl and (4- to 10-membered heterocycle)C₀-C₈alkyl.

59. (Currently amended) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein R₃ and R₄ are taken together to form a 4- to 10-membered heterocycle that is substituted with from 0 to 4 substituents independently selected from hydroxy, halogen, aminocarbonyl, C₁-C₄alkyl, hydroxyC₁-C₄alkyl, haloC₁-C₄alkyl, C₁-C₄alkoxy, haloC₁-C₄alkoxy, C₁-C₄alkanoyl, C₂-C₄alkoxycarbonyl, aminocarbonyl and (4- to 7-membered heterocycle)C₀-C₈alkyl.

60. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 59, wherein the 4- to 10-membered heterocycle is morpholinyl, piperidinyl, piperazinyl, pyrrolidinyl or thiomorpholinyl.

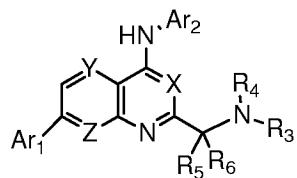
61. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein each R₅ and R₆ is independently selected from hydrogen and C₁-C₄alkyl.

62. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 61, wherein each R₅ and R₆ is hydrogen.

63. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein one R₅ and one R₆ attached to the same carbon atom are taken together to form a keto group.

64. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein n is 1.

65. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, having the formula:



wherein:

Ar₁ is phenyl or pyridyl, unsubstituted or substituted with halogen, cyano, C₁-C₄alkyl or haloC₁-C₄alkyl;

Ar₂ is phenyl or pyridyl, unsubstituted or substituted with C₁-C₄alkyl, cyanoC₁-C₄alkyl, haloC₁-C₄alkyl, C₂-C₆alkyl ether or a group of the formula -(SO₂)R_d, wherein R_d is C₁-C₄alkyl or haloC₁-C₄alkyl;

R₃ and R₄ are:

(a) independently selected from:

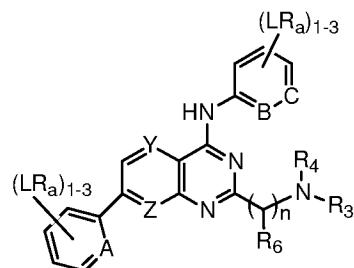
(i) hydrogen; and

(ii) C₁-C₆alkyl, C₂-C₆alkenyl, (5- to 7-membered heterocycle)C₀-C₄alkyl, C₂-C₆alkyl ether, indanyl, benzyl, 1-phenyl-ethyl, 1-phenyl-propyl and 2-phenyl-ethyl, each of which is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; or

(b) taken together to form a 5- to 7-membered heterocycloalkyl that is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; and

R₅ and R₆ are independently selected from hydrogen and C₁-C₄alkyl.

66. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 65, having the formula:



wherein:

A, B, and C are each independently CH or N, wherein the ring represented by the

structure  is phenyl or pyridyl;

Y is CH;

Z is N;

R₃ and R₄ are:

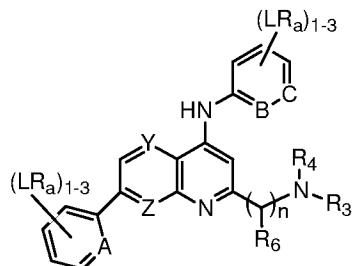
(a) independently selected from:

- (i) hydrogen; and
- (ii) C₁-C₆alkyl, C₂-C₆alkenyl, (5- to 7-membered heterocycle)C₀-C₄alkyl, C₂-C₆alkyl ether, indanyl, benzyl, 1-phenyl-ethyl, 1-phenyl-propyl and 2-phenyl-ethyl, each of which is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; or

(b) taken together to form a 5- to 7-membered heterocycloalkyl that is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; and

each R₆ is independently hydrogen or methyl.

67. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 65, having the formula:



wherein:

A, B, and C are each independently CH or N, wherein the ring represented by the

structure is phenyl or pyridyl;

Y is CH;

Z is N;

R₃ and R₄ are:

(a) independently selected from:

- (i) hydrogen; and
- (ii) C₁-C₆alkyl, C₂-C₆alkenyl, (5- to 7-membered heterocycle)C₀-C₄alkyl, C₂-C₆alkyl ether, indanyl, benzyl, 1-phenyl-ethyl, 1-phenyl-propyl and 2-phenyl-ethyl, each of which is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; or

phenyl-ethyl, each of which is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; or

(b) taken together to form a 5- to 7-membered heterocycloalkyl that is substituted with from 0 to 3 substituents independently selected from hydroxy, cyano, halogen, C₁-C₄alkyl and haloC₁-C₄alkyl; and each R₆ is independently hydrogen or methyl.

68. (Cancelled)

69. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein the compound has an IC₅₀ value of 100 nanomolar or less in a capsaicin receptor calcium mobilization assay.

70. (Previously presented) A compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, wherein the compound has an IC₅₀ value of 10 nanomolar or less in a capsaicin receptor calcium mobilization assay.

71. (Previously presented) A pharmaceutical composition, comprising at least one compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, in combination with a physiologically acceptable carrier or excipient.

72. (Original) A pharmaceutical composition according to claim 71 wherein the composition is formulated as an injectible fluid, an aerosol, a cream, a gel, a pill, a capsule, a syrup or a transdermal patch.

73. - 87. (Cancelled)

88. (Withdrawn) A method for treating pain in a patient, comprising administering to a patient suffering from pain a therapeutically effective amount of at

least one compound or pharmaceutically acceptable salt or hydrate thereof according to claim 41, and thereby alleviating pain in the patient.

89. – 91. (Cancelled)

92. (Withdrawn) A method according to claim 88, wherein the patient is suffering from neuropathic pain.

93. (Withdrawn) A method according to claim 88, wherein the pain is associated with a condition selected from: postmastectomy pain syndrome, stump pain, phantom limb pain, oral neuropathic pain, toothache, postherpetic neuralgia, diabetic neuropathy, reflex sympathetic dystrophy, trigeminal neuralgia, osteoarthritis, rheumatoid arthritis, fibromyalgia, Guillain-Barre syndrome, meralgia paresthetica, burning-mouth syndrome, bilateral peripheral neuropathy, causalgia, neuritis, neuronitis, neuralgia, AIDS-related neuropathy, MS-related neuropathy, spinal cord injury-related pain, surgery-related pain, musculoskeletal pain, back pain, headache, migraine, angina, labor, hemorrhoids, dyspepsia, Charcot's pains, intestinal gas, menstruation, cancer, venom exposure, irritable bowel syndrome, inflammatory bowel disease and trauma.

94. (Withdrawn) A method according to claim 88, wherein the patient is a human.

95-105. (Cancelled)